

Amendments to the Claims:

Please cancel claims 18-32 without prejudice to the filing of a divisional application including same. Applicants note that claims 18-32 were previously withdrawn, but not formally canceled, even though the text thereof was omitted from Applicants' prior response. Please note that all claims currently pending and under consideration in the referenced application are shown below. No claims are amended herein. This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Previously Presented) A rocket motor having insensitive munitions capability, the rocket motor comprising:
a case that is rupturable at an internal pressure burst level, the case comprising:
a propellant located in the case, the propellant formulated to thermally expand when heated to a temperature below an autoignition temperature of the propellant and to apply an internal pressure to the case that is less than the internal pressure burst level of the case; and
an insensitive munitions charge located in the case, the insensitive munitions charge formulated to release gas when heated to a temperature above an autoignition temperature of the insensitive munitions charge, wherein the released gas in combination with the internal pressure applied by the propellant is sufficient to raise an internal pressure inside the case above the internal pressure burst level of the case.
2. (Original) The rocket motor of claim 1, wherein the propellant is formulated to undergo thermal expansion so as to fill free volume inside the case.

3. (Original) The rocket motor of claim 1, wherein the insensitive munitions charge is formulated to have an autoignition temperature below the autoignition temperature of the propellant.

4. (Original) The rocket motor of claim 1, wherein the internal pressure applied by expansion of the propellant and the gas released by the insensitive munitions charge is selected to rupture the case before the propellant reaches its autoignition temperature.

5. (Previously Presented) The rocket motor of claim 1, wherein the propellant is formulated to undergo thermal expansion so as to fill free volume inside the case with the propellant at about 66°C.

6. (Original) The rocket motor of claim 1, wherein the propellant is formulated to have an autoignition temperature of about 238°C.

7. (Original) The rocket motor of claim 1, wherein the insensitive munitions charge is formulated to have an autoignition temperature of at least about 56°C below the autoignition temperature of the propellant.

8. (Original) The rocket motor of claim 1, wherein an internal pressure of the gas released by the insensitive munitions charge is not more than 25 percent of the internal pressure applied by the thermal expansion of the propellant.

9. (Original) The rocket motor of claim 1, wherein the case comprises a cylindrical region, a closed forward end, and an aft assembly, the aft assembly comprising an aft closure member provided with an opening.

10. (Previously Presented) The rocket motor of claim 1, further comprising: a nozzle assembly coupled to the case, the nozzle assembly comprising a nozzle passageway; and

an igniter assembly operational between an inactive state, in which the nozzle passageway is obstructed, and an activated state, in which the igniter assembly is functional to ignite the propellant and the nozzle passageway is substantially unobstructed to permit flow through the nozzle passageway.

11. (Previously Presented) The rocket motor of claim 9, wherein the insensitive munitions charge is situated between the aft closure member and the propellant.

12. (Previously Presented) The rocket motor of claim 9, further comprising a rubber insulator comprising a radially extending portion situated between the propellant and the aft assembly, wherein the insensitive munitions charge is situated in contact with the radially extending portion of the rubber insulator.

13. (Previously Presented) The rocket motor of claim 9, further comprising a rubber insulator comprising a radially extending portion and an axial extension, the radially extending portion of the rubber insulator being situated between the propellant and the aft assembly, the axial extension being situated between the propellant and the cylindrical region of the case.

14. (Original) The rocket motor of claim 13, wherein the axial extension of the rubber insulator is spaced radially from the cylindrical region of the case to form a cylindrical void area therebetween.

15. (Previously Presented) The rocket motor of claim 10, further comprising a throat-barrier member for obstructing the nozzle passageway.

16. (Original) The rocket motor of claim 15, wherein the throat-barrier member comprises an erosive nozzle piece.

17. (Original) The rocket motor of claim 1, further comprising a secondary insensitive munitions charge positioned in close proximity to an aft surface of the propellant, the second insensitive munitions charge having an autoignition temperature at which the second insensitive munitions charge autoignites to release gas, the autoignition temperature of the second insensitive munitions charge being below the autoignition temperature of the propellant and being above the autoignition temperature of the insensitive munitions charge.

Claims 18-32 (Canceled)

33. (Previously presented) The rocket motor of claim 1, wherein the propellant comprises a composite propellant.

34. (Previously presented) The rocket motor of claim 1, wherein the propellant comprises ammonium perchlorate, aluminum, and hydroxyl terminated polybutadiene.

35. (Previously presented) The rocket motor of claim 1, wherein the propellant comprises a double-base propellant.

36. (Previously presented) The rocket motor of claim 1, wherein the insensitive munitions charge comprises a rocket propellant.

37. (Previously presented) The rocket motor of claim 1, wherein the insensitive munitions charge is selected from the group consisting of a dihydroxyglyoxime propellant, a hydroxy-terminated polyether, and a random 50:50 copolymer of polytetrahydrofuran and polyethyleneglycol.

38. (Previously presented) The rocket motor of claim 1, wherein the insensitive munitions charge comprises a dihydroxyglyoxime propellant.